

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of the Claims:

Claim 1 (Previously presented): An optical device comprising:
 a dispersive element operatively arranged to split a first light beam from a first direction into various wavelengths;
 an imaging optic and,
 a microstructured element operatively arranged at a cleavage plane, wherein said cleavage plane is defined by said dispersive element and said imaging optic, said cleavage plane defining a position for said various wavelengths, wherein said microstructured element is operatively arranged to deflect said first light beam from said first direction and at least a second light beam from a second direction, said light beams focused via said imaging optic on positions corresponding to their respective wavelength and to said dispersive element, wherein said dispersive element is operatively arranged to collinearly unite said light beams.

Claim 2 (Withdrawn, previously presented): The optical device according to Claim 1, wherein the light beams have different wavelengths.

Claim 3 (Withdrawn, previously presented): The optical device according to Claim 1, wherein at least one light beam has multiple wavelengths.

Claim 4 (Withdrawn, previously presented): The optical device according to Claim 1, wherein the dispersive element comprises means for spectrally cleaving at least one light beam spatially before the incidence on the microstructured element.

Claim 5 (Withdrawn, previously presented): The optical device according to Claim 1, wherein at least one further dispersive element spectrally cleaves at least one light beam spatially before the incidence on the microstructured element.

Claim 6 (Withdrawn, previously presented): The optical device according to Claim 1, wherein the dispersive element comprises a prism.

Claim 7 (Withdrawn, previously presented): The optical device according to Claim 1, wherein the dispersive element comprises a grating.

Claim 8 (Withdrawn, previously presented): The optical device according to Claim 1, wherein the dispersive element comprises the imaging optic.

Claim 9 (Withdrawn, previously presented): The optical device according to Claim 1, wherein the microstructured element comprises reflecting and transmitting areas.

Claim 10 (Currently amended): The optical device according to Claim ~~[[9]]~~ 1, wherein ~~the reflecting areas of the microstructured element comprise~~ comprises mirrored surfaces of different inclinations.

Claim 11 (Previously presented): The optical device according to Claim 1, wherein the microstructured element comprise MEMS (micro-electromechanical systems) and/or MOEMS (micro-optoelectromechanical systems).

Claim 12 (Previously presented): The optical device according to Claim 1, wherein the microstructured element comprises a micromirror array.

Claim 13 (Withdrawn, previously presented): The optical device according to Claim 1, wherein the microstructured element comprises a microprism array.

Claim 14 (Withdrawn, previously presented): The optical device according to Claim 1, wherein the microstructured element comprises areas having varying indices of refraction.

Claim 15 (Withdrawn, previously presented): A microscope comprising an optical device according to Claim 1.

Claim 16 (Withdrawn, previously presented): A scanning microscope, which comprises, an optical device for generating an illumination light beam according to Claim 1.

Claim 17 (Withdrawn, previously presented): The scanning microscope according to Claim 16, which is a confocal scanning microscope.

Claim 18 (Withdrawn, previously presented): A microscope comprising an optical device according to Claim 6.

Claim 19 (Withdrawn, previously presented): A microscope comprising an optical device according to Claim 7.

Claim 20 (Withdrawn, previously presented): A microscope comprising an optical device according to Claim 8.

Claim 21 (Previously presented): A microscope comprising an optical device according to Claim 11.

Attorney Docket No. LASP:131US
U.S. Patent Application No. 10/567,679
Reply to Office Action of March 25, 2009
Date: May 22, 2009

Claim 22 (Previously presented): A microscope comprising an optical device according to Claim 12.

Claim 23 (Previously presented): A microscope comprising an optical device according to Claim 13.